

Intrinsically Bactericidal Absorbent Dressing and Method of Fabrication

APPLICATION 09/857906 FILED 11/4/02 IS THE NATIONAL
STAGE ENTRY OF PCT/US99/29091 WHICH CLAIMS PRIORITY TO
Field of the Invention

PROVISIONAL
60/111472

5 This invention relates generally to absorbent dressings, and more particularly highly-absorbent synthetic polymer dressings having antimicrobial agents attached thereto.

Background of the Invention

Bacterial growth in absorbent dressings for wounds, urinary incontinence diapers, and menstruation pads can lead to serious medical complications as well as social difficulties. For example, bacterial growth in urinary incontinence diapers or menstruation pads usually produces strong, unpleasant odors that are socially unacceptable and can cause persons to alter their lifestyle. Conventional absorbent pads for urinary incontinence and menstruation are not inherently bactericidal. Consequently, the only way to avoid growth of bacteria in the absorbent dressings is to change them at frequent intervals, even if the absorbent capacity of the pad has not been reached. In the area of wound dressings, bacterial contamination of acute wounds and infection of chronic skin wounds are major clinical problems that can result in significant morbidity and, in severe cases, mortality. Conventionally, wound dressings have been designed to absorb wound fluids and yet provide a moist environment for promoting wound healing. However, such moist environments create a nutrient rich reservoir for bacterial growth in the dressing. Bacteria growing in the dressing can be shed back into the wound, increasing the risk of wound infection, or response to toxins, and producing strong, foul odors.

20 In an effort to address these problems, antibiotics or chemical disinfectants are frequently applied topically to wounds prior to covering the wound with a dressing.